AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1.   (currently amended): A method, for virtually concatenating optical channels in a WDM ~~networks~~network, comprising:

providing for a plurality of frames, each frame comprising a byte reserved for a concatenation flag;

writing a same value defined in advance into the n-frame (n=1,2,3,...) concatenation byte;

~~and~~

transmitting the n frames through n respective channels in the WDM network; and

receiving the n frames,

wherein each frame is received on a same channel number assigned at the transmission side.

2.   (currently amended): The method according to claim 1, ~~A method, for~~further comprising:

receiving a number n of virtually concatenated signal frames in a WDM ~~networks~~network, which comprises:~~comprising:~~

receiving a first reference frame at an instant t_0;

reading a concatenation byte value of such reference frame;

receiving the remaining n-1 signal frames after a respective determined time t;

reading the concatenation byte value of the remaining n-1 signal frames; and

identifying and aligning all the signal frames with the same concatenation byte value compensating for the receiving time t in the WDM network.

3.   (previously presented): A method according to claim 2, wherein the aligning of all the signal frames with the same concatenation byte value comprises:

receiving the remaining n-1 signal frames at corresponding instants t_i;

calculating, for each of the remaining n-1 frames, the time t elapsed from the instant at which the reference frame has been received;

providing, for every channel, an elastic store; and

holding steady the elastic storage of the reference channel and moving the others in dependence of the calculated times t.

4.   (previously presented): A method according to claim 2, wherein the receiving of the remaining n-1 signal frames comprises:

reading a frame alignment word of the reference frame at a first instant t_o;

reading the frame alignment word of the remaining n-1 frames at corresponding second instants t_i; and

calculating the time differences t between the first instant t_o and the corresponding second instants t1.

5.   (previously presented): A method according to claim 2, further comprising:

calculating possible differences between the concatenation byte value of the reference frame and the concatenation byte value of the remaining n-1 frames,

multiplying said possible differences by the frame period T, and

adding the value obtained to the respective time differences t.

6-11.   (canceled).

12. (currently amended):   The method for virtually concatenating optical channels in a WDM ~~networks~~network, according to claim 1, wherein the byte reserved for a concatenation flag is not fixed.

13. (canceled).

14. (new):   A WDM network comprising:

a first apparatus which virtually concatenates a plurality of optical channels, the first apparatus comprising:

a first circuit adapted to provide for a plurality of frames, each frame comprising a byte reserved for a concatenation flag indicating concatenation of the plurality of frames, and adapted to write a same pre-defined value into the concatenation flag of the plurality of frames; and

a transmitter adapted to transmit the plurality of frames over the plurality of

optical channels in the WDM network;

a second apparatus comprising:

a first receiver adapted to receive the plurality of frames, wherein each frame is

received on a same optical channel number assigned by the transmitter.

15. (new):   The WDM network according to claim 14, wherein the first receiver is

further adapted to receive a first reference frame from the plurality of frames at a time t0 and

adapted to read the concatenation flag value of said first reference frame; and

wherein the second apparatus further comprises:

a second receiver adapted to receive the remaining plurality of frames after a

corresponding pre-defined time t and to read the concatenation flag value of said

remaining plurality of frames; and

a second circuit adapted to identify and align the plurality of frames having the

same concatenation flag value.

16. (new):   The method for virtually concatenating optical channels in a WDM network,

according to claim 14, wherein the byte reserved for a concatenation flag is not fixed.